

small flocks. The white rump is very conspicuous in flight. Note like that of the Lesser Tern.

Adult (Senna, July 25, 1898). Iris blue; eyelids coral-red; bill black, coral-red at base; legs and feet dark brown.

258. *GLAREOLA EMINI* Shelley.

This species, which is represented in the British Museum by the type obtained by Emin Pasha at Foda in Equatorial Africa, is distributed in small colonies along the river above Tete. Small islands of sand interspersed with rock are favourite resorts. On the smooth portions of the rocks these graceful little birds were to be observed throughout the day in squatting positions basking in the heat of the sun. They evince little fear, and if driven from their retreat they fly away for a short distance, to return again and alight on the rocks, like so many Swallows, uttering all the time a series of faint notes, which might be described by the syllables "kip-kip," rapidly repeated. During a shower of rain these birds would congregate into small flocks and fly to and fro above the water, making a great noise, and all the time busy catching insects. In flight the white of the upper tail-coverts is very conspicuous.

Adult (Mesanangue, Aug. 27, 1898). Iris brown; front portion of bill black, basal portion and gape coral-red; legs and feet coral-red.

Four specimens obtained, the last at Zumbo, Nov. 9, 1898.

XXV.—*Descriptions of some new or rare Eggs of Australian Birds.* By D. LE SOUËF, of Melbourne, C.M.Z.S.

1. *MICRÆCA ASSIMILIS* Gould. (Lesser Brown Flycatcher.)

This interesting little bird is found in the western portion of Australia from north to south, but it is nowhere very plentiful. It has a sweet note and is far from being shy. I noticed it on two occasions near York, in Western Australia. Its small compact nest was found near Katanning, Western Australia, during the latter part of October. It was situated on a fork near the end of a horizontal branch, and measured

$1\frac{1}{2}$ inch in diameter by $\frac{1}{2}$ inch in depth. It was composed of grass, and the exterior had small pieces of bark fastened on to it with cobwebs, which made it difficult to distinguish from the branch it was on. There were only two eggs in the nest, but the full clutch is three. The ground-colour is pale bluish green, with irregular dark reddish-brown markings, slightly more numerous on the larger end; the markings beneath the surface are of a pale grey. The eggs measure: A 0.66×0.52 , B 0.67×0.54 inch.

2. *MICRÆCA PALLIDA* De Vis. (Pale Flycatcher.)

This bird is found across the northern portion of the continent. The nest here described was procured near Cooktown by Mr. R. Hislop on December 11th, 1899, and he also secured the parent bird; the nest was attached to a low melaleuca-tree, about 6 feet from the ground. It is a pretty structure, and very difficult to detect; it is built in rather a wide fork near the end of a branch, and is composed of fine seed-stalks of grass, covered externally with flakes of bark, which are apparently taken off the bough on which the nest is built, and fastened on with cobwebs. The same useful material is used to bind the nest to its support. It measures—external depth 1 inch, internal $\frac{3}{4}$ of an inch; external diameter 2 inches, internal $1\frac{1}{2}$ inch. There were two eggs in the nest; their ground-colour is light greenish grey, with irregular light reddish-brown markings, which are fairly evenly distributed over the surface; the markings under the surface are of a pinkish grey. The markings on one egg are lighter than those on the other. The eggs measure: A 0.67×0.52 , B 0.66×0.51 inch. Dr. W. Macgillivray had previously briefly described the nest of this species, but no measurements were given.

3. *PETRÆCA CAMPBELLI* Sharpe. (Campbell's Robin.)

This pretty little bird is found in Western Australia only; it is not shy and has a pleasing note. The nesting-season extends from September to December. One of its nests was found on Oct. 17th, 1899. It was a compact cup-shaped structure, and composed almost entirely of fine shreds of

bark, the outside being of a little coarser material than the lining; a few feathers were also woven into the lower portion of the nest; the exterior was lightly covered with cobwebs, on which were fastened small thin flakes of bark, taken off the tree on which the nest was built. It measures—external diameter $2\frac{3}{4}$ inches, internal $1\frac{3}{4}$; external depth $2\frac{1}{4}$ inches, internal $1\frac{1}{4}$. The clutch of eggs is two; they are a swollen oval in shape, and have a whitish ground-colour, with fine very dark brown markings, which are mostly on the larger end and form an irregular zone. The markings under the surface are of a grey colour. The eggs measure: A 0.71×0.58 , B 0.68×0.54 inch.

4. *PLATYCERCUS ICTEROTIS* (Temm.). (Yellow-checked Parrakeet.)

This brightly-coloured bird is one of the commonest Parrots in Western Australia. It is locally called the "Rosella," and is easily kept in captivity. It has a pleasant though somewhat feeble note, and nests from September to January. A full clutch consists of seven eggs, which are laid on the rotten wood at the bottom of some hole in a eucalyptus-tree. The eggs measure: A 1.4×0.86 , B 1.12×0.88 , C 1.6×0.88 , D 1.7×0.87 inch.

5. *PHILEMON ARGENTICEPS* Gould. (Silvery-crowned Friar-bird.)

I described the eggs of *P. argenticeps* last year, but only from one clutch; this season Mr. R. Hislop has kindly sent me several clutches which exhibit variations in marking worth noting. The first clutch received was reddish pink, but the last lot range from reddish pink, well freckled all over, to others with just the least shade of pink on them and with a few very light greyish markings, hardly discernible, and the latter variety seems the most plentiful. They likewise vary in size, one clutch measuring: A 1.26×0.82 , B 1.24×0.82 ; and another: A 1.8×0.79 , B 1.9×0.79 inch. Along with the latter clutch was found an egg of *Eudynamis cyanocephala*, and I cannot do better than quote Mr. Hislop's own words regarding it. He says:—

“In the clutch I got on December 27th there was one egg which I think is that of Flinders’s Cuckoo, and, strange to say, it was the first egg laid in the nest; it was in the nest when we found it, and it was not until two or three days later that the Friar-bird laid its two eggs, as on coming back four days after we found the three in the nest.” The egg is very similar in colour to that of a well-marked egg of the *Philemon argenticeps*; it has a reddish-pink ground-colour, and is well marked all over with elongated reddish-brown blotches: these are more numerous at the larger end, but do not form a zone. The egg measures 1.25×0.90 inch.

6. *POËPHILA NIGROTECTA* Hartert. (Hartert’s Finch.)

These Finches were found nesting by Mr. R. Hislop not far from Cooktown, North Queensland. The birds were described last year by Mr. E. Hartert in ‘The Ibis’ (1899, p. 647).

These birds, like the majority of Finches, feed mostly on the ground, where they can generally get a plentiful supply of grass and other seeds. They nest apparently very early, as Mr. Hislop found eggs on June 9th, 1899. The nest contained five fresh eggs, and was the usual bulky domed structure, composed of grass, and built in a thick bush. The full clutch is five; the eggs are pure white, and a swollen oval in shape. They measure: A 0.56×0.41 , B 0.52×0.42 , C 0.52×0.42 , D 0.52×0.42 , E 0.53×0.42 inch.

7. *SMICRORNIS FLAVESCENS* Gould. (Yellow-tinted Smicornis.)

The nest and eggs of this diminutive little bird, probably the smallest of any Australian species, were found by Mr. R. Hislop near Cooktown on October 22nd, 1899. He writes: “I found this bird’s nest in a melaleuca-tree, about 15 feet from the ground. I shot both birds at the nest. The female had one egg in her when shot, but it was broken. I have found other nests, but they all contained two young ones.” These little birds are very difficult to detect, from their habit of keeping among the topmost branches of the trees, hunting for their insect prey. The

nest is a beautiful structure, and built in a thick bunch of leaves and flowers at the end of a branch of the red-flowering melaleuca-tree; it is domed and very small, and is composed almost entirely of the soft downy young melaleuca-leaves and buds, all well bound together with cobwebs, and larger leaves from the same tree are fastened on round it, almost completely hiding the wonderful structure and making it very difficult to see. It is lined at the bottom with a little white down and some yellow cobwebs; it measures—external breadth $1\frac{3}{4}$ inch, internal 1; external depth 3 inches, internal 2. The entrance is near the top, and without any porch. The ground-colour of the egg is brown, with a slight shade of pink, and with a few faint markings of a darker hue, and which form a zone on the larger end, where they are confluent; it measures 0.58×0.44 inch. A short description of this egg appeared in the Report of the Horn Expedition to Central Australia, but no particulars of the nest were given.

8. *ATRICHIA CLAMOSA* Gould. (Noisy Scrub-bird.)

This active bird is found in the southern coastal districts of Western Australia, where it inhabits the dense scrubs. Its nest and eggs were found by Mr. J. Hassell in October 1897 near Albany. He was passing along a narrow track through some thick scrub, when he heard the bird uttering its note; he forced his way to the place, and when doing so suddenly saw the hen bird fly out from what appeared to be a bunch of grass close to his feet, but this, on examination, proved to be the nest, and he has kindly sent me a description of it. It was situated on the ground alongside the root of a eucalyptus-tree, which was about 7 inches out of the ground, and was dome-shaped and constructed of grass and rootlets, with a few leaves, and lined with a white downy-looking substance; it measured—height $8\frac{1}{2}$ inches, breadth $5\frac{3}{4}$. It contained two eggs, slightly incubated, swollen oval in shape, and with a ground-colour of reddish white; the markings are purplish brown, more plentiful on the larger end, where they are confluent; the markings beneath the surface are

light purple. The eggs measure: A 0.90×0.69 , B 0.85×0.67 inch.

9. *MELITHREPTUS ALBIGULARIS* Gould. (White-throated Honey-eater.)

This Honey-eater is found right across the northern portion of Australia, and is a lively active bird. Mr. R. Hislop found its nest on October 23rd in a melaleuca-tree about 15 feet from the ground; it was suspended near the end of a branch, and is a very pretty structure, being composed of very fine light-coloured shreds of melaleuca-bark, interwoven with small lumps of white silky-looking spiders'-web and thin white pieces of paper-bark, and also lined with the latter material; it is fastened on to the branches with cobweb. It measures—external diameter $2\frac{1}{2}$ inches, internal $1\frac{3}{4}$; external depth 2 inches, internal $1\frac{1}{2}$. The two eggs of the clutch vary in colour, one being much lighter than the other; the ground-colour is reddish pink in one and pinkish white in the other, with light reddish markings round the larger end, where they are confluent. The eggs measure: A 0.73×0.54 , B 0.70×0.53 inch.

10. *GLYCYPHILA SUBOCULARIS* Gould. (Least Honey-eater.)

These little birds are plentiful in suitable localities of Northern Australia, and Mr. R. Hislop found two of their nests containing eggs last season, one on October 3rd, and the other on June 14th. The latter was suspended from a fork near the end of a branch in a melaleuca-tree, about 20 feet from the ground; it is a light structure, and composed of fine shreds of bark interwoven with very thin white pieces of so-called paper-bark and a small amount of cobweb on the outside, which helps to fasten it on to the branch; it is lined with a white downy-looking substance, and measures—external diameter $2\frac{1}{4}$ inches, internal $1\frac{1}{2}$; external depth $2\frac{1}{4}$ inches, internal 2. The two eggs of the clutch vary both in size and colour, one being pure white, with a few very faint specks round the larger end, while the other is a very delicate reddish pink, with a faint zone of reddish markings round

the larger end. They measure : A 0.66×0.50 , B 0.63×0.46 inch.

11. *GEOCICHLA HEINII* (Cab.). (Russet-tailed Ground-Thrush.)

This species has an extensive range on the north-east coast of Australia, from Cape York to the Clarence River district. It inhabits the gloomy cedar-scrubs near the coast, and is generally seen near water, hopping about on the ground in search of its food, which consists principally of insects. From its colour it is difficult to detect this bird, and when I have been sitting still in the scrub I have often heard it turning over the dry leaves before seeing it. Its nest is an open structure, very similar to that of a Blackbird (*Turdus merula*). It is usually situated in the first and thick fork of a scrub-tree, the bird generally choosing one that has moss growing on its trunk. On the outside it is constructed of moss from the tree, which makes it very difficult to detect. It is lined with rootlets and dark-coloured fibres. The eggs number from two to three.

Mr. H. Lan found a nest of this bird on December 4th, 1886, in the Bunga Bunga Mountains, South Queensland. It contained one fresh egg, which may be described as follows :—Ground-colour greenish white, speckled with small light-coloured rusty-brown dots of varying sizes, and more numerous at the larger end, a few appearing as if beneath the surface, and being elongated and of a very faint purplish colour. The egg measures 1.10×0.78 inch.

XXVI.—*On Moult and Colour-change in Birds.*

By J. LEWIS BONHOTE, B.A.

BEING greatly interested in moult and colour-change, I have read very carefully and with much pleasure three recent papers on the subject which have appeared in American periodicals, one* of which upholds the theory of change of colour in the feather, while the other two† are against it.

* Chadbourne, 'Auk,' xiv. 1897, p. 137.

† Allen, Bull. Am. Mus. Nat. Hist. viii. 1896, pp. 43, 44; Stone, Proc. Ac. Nat. Sci. Phil. 1896, p. 108.